0068926

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0159-01 SAF-RC-001

Rad only X Chem only Rad & Chem

X Complete Partial

300 Area 334 Bldg

DATA CHEM LABORATORIES

Cover Page

Report Identification Number: 06I-0159-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001
Payroll#: 0636267 CoA R33400J451

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
12 Jan 2006	J10X17	06I01299	NMAM 7300M	G060J011	MCE
12 Jan 2006	J10X18	06I01300	NMAM 7300M	G060J011	MCE
12 Jan 2006	J10X11	06I01301	NMAM 7300M	G060J011	MCE
12 Jan 2006	J10X12	06I01302	NMAM 7300M	G060J011	MCE
12 Jan 2006	J10X13	06I01303	NMAM 7300M	G060J011	MCE
12 Jan 2006	J10X14	06I01304	NMAM 7300M	G060J011	MCE
12 Jan 2006	J10X15	06I01305	NMAM 7300M	G060J011	MCE
12 Jan 2006	J10X16	06I01306	NMAM 7300M	G060J011	MCE

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Name: Lisa M. Reid
Title: Chemist
Date: January 18, 2006

DATA CHEM LABORATORIES

Case Narrative Page

Report Identification Number: 06I-0159-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001
Payroll#: 0636267

General Set Information: There are 8 samples in set 06I-0159-01 and 5 samples in set 06I-0160-01 which were analyzed for beryllium on MCE filter. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Samples were digested in a hot block set at 110°C for 40 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.01 ug/sample. .

Method Blank Analysis: No beryllium was found in the media blank sample above the Contract Required Detection Limit (CRDL).

Dilution(s): NA.

Laboratory Control Sample and Duplicate Analysis: One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) were prepared and analyzed with the sample batch. The LCS result was within the control limit of +/- 20%. The Relative Percent Differences (RPD) between the LCS and the LCSD was within the control limit of 20%.

Case Narrative Page

Replicate Analysis: Two samples in this batch were replicated. The RPD between the sample and the replicate was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples (µg/sample) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination (µg/L)

B = Concentration factor from sample preparation

$$= \frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$$

C = Dilution performed at time of analysis

Example Calculation: (1 µg/L) x (0.025 L/sample) x (1) = 0.025 µg/sample

Miscellaneous Comments: None.

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Report Page

Report Identification Number: 06I-0159-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001
Payroll#: 0636267

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/sample		Beryllium µg/m³		Air Volume L	
J10X17	06I01299	17 Jan 2006	<0.01	U	**		0.	
J10X18	06I01300	17 Jan 2006	<0.01	U	**		0.	
J10X11	06I01301	17 Jan 2006	<0.01	U	<0.0014	U	7142.4	
J10X12	06I01302	17 Jan 2006	<0.01	U	<0.0013	U	7803.12	
J10X13	06I01303	17 Jan 2006	<0.01	U	<0.0013	U	7594.50	
J10X14	06I01304	17 Jan 2006	<0.01	U	<0.0089	U	1128.272	
J10X15	06I01305	17 Jan 2006	<0.01	U	<0.013	U	761.342	
J10X16	06I01306	17 Jan 2006	<0.01	U	<0.0091	U	1101.92	
Limit of Detection (LOD)			0.01					
Required Detection Limit (RDL)								

U - Parameter not detected above LOD.
J - Parameter between LOD and RDL.

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QC Summary Page

Report Identification Number: 06I-0159-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF: RC-001
Payroll#: 0636267

Batch ID: G060J011

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-240140-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
QC-240140-1	LCS	Beryllium	µg/sample	10.3	NA	10.0	103.	NA
QD-240140-1	LCSD	Beryllium	µg/sample	10.5	10.3	10.0	105.	1.88

MB - Method Blank
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MSD - Matrix Spike Duplicate
LD - Laboratory Duplicate

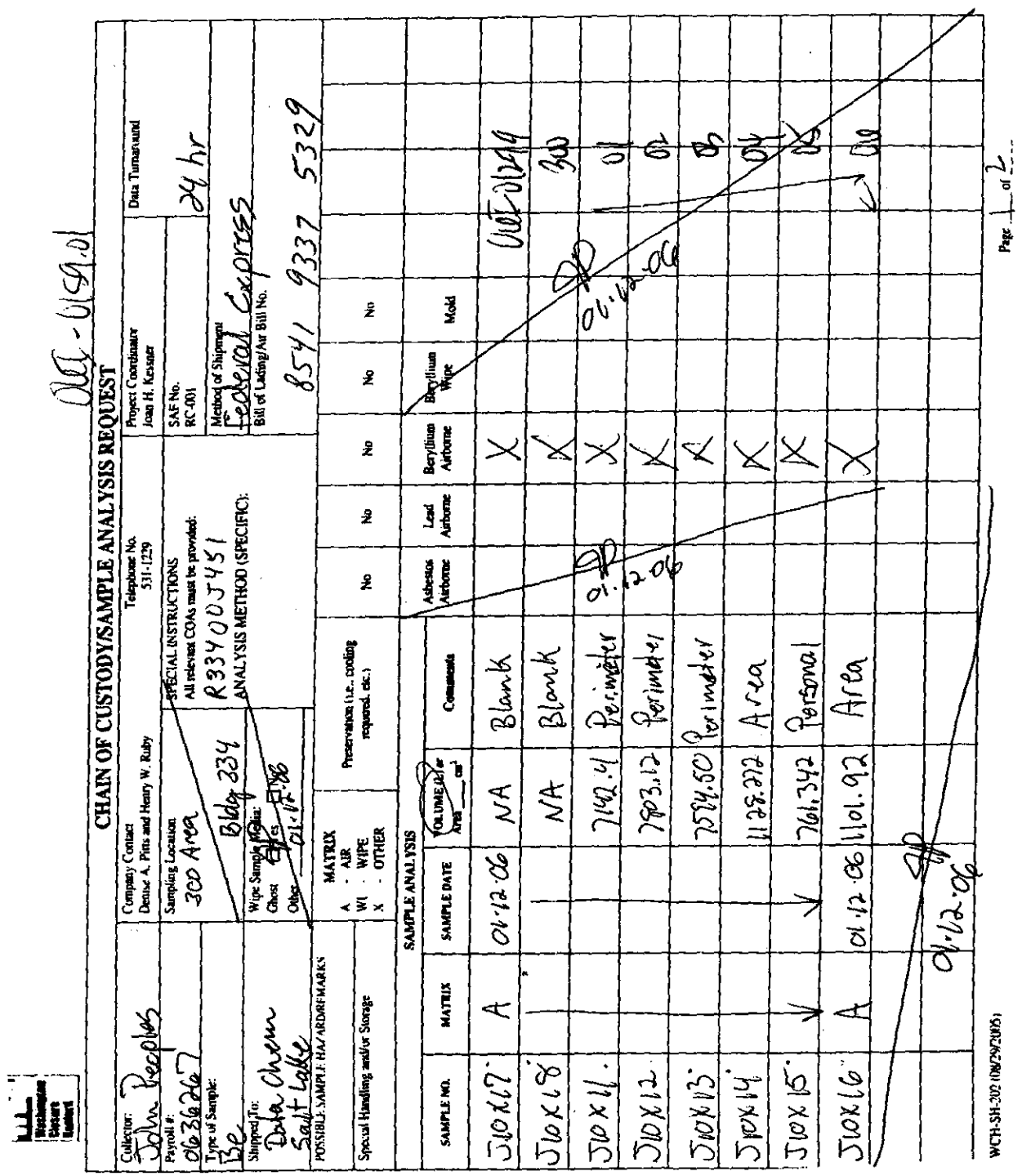
NA - Not Applicable
ND - Parameter not detected above LOD

LCS, LCSD Percent Rec. = (Result / Target) * 100.0
MS, MSD Percent Rec. = ((Result – Parent) / Target) * 100.0

LCS, LCSD Relative Percent Diff. = ((|LCS – LCSD|) / ((LCS + LCSD)/2.0)) * 100.
MS, MSD Relative Percent Diff. = ((|MS – MSD|) / ((MS+ MSD)/2.0)) * 100.
LD Relative Percent Diff. = ((|Parent – LD|) / ((Parent + LD)/2.0)) * 100

DATA CHEM LABORATORIES

COC Page



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: John Peoples
Company Contact: Denise A. Pitts and Henry W. Ruby
Telephone No.: 531-1229
Project Coordinator: Joan H. Kessner
Data Turnaround: 24 hr
Payroll #: 0636267
Sampling Location: 300 Area, Bldg 234
SPECIAL INSTRUCTIONS: All relevant COAs must be provided: R3340073451
SAF No.: RC-001
Method of Shipment: Federal Express
Type of Sample: Be
Wipe Sample Plate: Ghost / Other
ANALYSIS METHOD (SPECIFIC):
Bill of Lading/Air Bill No.: 8541 9337 5329
Shipped To: Data Chem Salt Lake
POSSIBLE SAMPLE HAZARDS/REMARKS:
Special Handling and/or Storage
MATRIX: A - AIR, WI - WIPE, X - OTHER
Preservation (i.e., cooling required, etc.)

SAMPLE ANALYSIS

SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME/Area	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold
J10X17	A	01.12.06	NA	Blank			X		
J10X18			NA	Blank			X		
J10X11			742.4	Perimeter			X		
J10X12			1903.12	Perimeter			X		
J10X13			7594.50	Perimeter			X		
J10X14			11283.22	Area			X		
J10X15			761.342	Personal			X		
J10X16	A	01.12.06	1101.92	Area			X		

01.12.06

Page 1 of 2

WCH-SH-202 (08/29/2005)

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DATA CHEM LABORATORIES

COC Page

Enter on line below the first Sample Number from Page One:

510 x17

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Signed	DATE / TIME	Received By/Signed	DATE / TIME
John Peoples	01-12-06 / 1600	Locked Cabinet Room 16 Bldg. 3746	01-12-06 / 1600
Relinquished By/Signed: JM Driggers / DM Driggs	DATE / TIME	Received By/Signed:	DATE / TIME
locked cabinet 3746 room 16	1-16-06 / 1415	RZ Steffler R.J. Steffler	1-16-06 1415
Relinquished By/Signed: RZ Steffler R.J. Steffler	DATE / TIME: WCH 1-16-06 / 1500	Received By/Signed: Fed Ex	DATE / TIME:
Relinquished By/Signed: Fed Ex	DATE / TIME	Received By/Signed: Meredith Edwards	DATE / TIME: 17 June / 945
Relinquished By/Signed: Meredith Edwards	DATE / TIME: 17 June / 945	Received By/Signed:	DATE / TIME
Relinquished By/Signed:	DATE / TIME	Received By/Signed:	DATE / TIME
Relinquished By/Signed:	DATE / TIME	Received By/Signed:	DATE / TIME
Relinquished By/Signed:	DATE / TIME	Received By/Signed:	DATE / TIME
Relinquished By/Signed:	DATE / TIME	Received By/Signed:	DATE / TIME

LABORATORY SECTION	Received By	Title	DATE / TIME
	Meredith Edwards		17 June / 945

REVIEWED BY: _____ DATE: _____

PRINT/SIGN NAME

WCH-SH-202 (08/29/2005)

7

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: John Peeples	Company Contact: Denise A. Pitts and Henry W. Ruby	Telephone No.: 531-1229	Project Coordinator: Joan H. Kessner
Payroll #: 06362667	Sampling Location: 300 Area, Bldg 334	SPECIAL INSTRUCTIONS: All relevant COAs must be provided:	SAF No.: RC-001
Type of Sample: Be	Wipe Sample Media: Ghost ☒ Yes ☐ No; Other 01-12-06	ANALYSIS METHOD (SPECIFIC):	Method of Shipment: Federal Express
Shipped To: Data Chem Salt Lake			Bill of Lading/Air Bill No.: 8541 9337 5329

Data Turnaround: 24 hr

POSSIBLE SAMPLE HAZARD/REMARKS

Special Handling and/or Storage

MATRIX
A - AIR
WI - WIPE
X - OTHER

Preservation (i.e., cooling required, etc.)

SAMPLE ANALYSIS

SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area ____ cm²	Comments	Asbestos Airborne: No	Lead Airborne: No	Beryllium Airborne: No	Beryllium Wipe: No	Mold: No
J10X17	A	01.12.06	NA	Blank			X		
J10X18			NA	Blank			X		
J10X11			7142.4	Perimeter			X		
J10X12			7903.12	Perimeter			X		
J10X13			7584.50	Perimeter			X		
J10X14			1128.272	Area			X		
J10X15	↓	↓	761.342	Personal			X		
J10X16	A	01.12.06	1101.92	Area			X		
		01.12.06							

COPY

FIELD SAMPLE COPY

WCH-SH-202 (08/29/2005)

Enter on line below the first Sample Number from Page One:

510 x17

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Stored	DATE / TIME	Received By/Stored	DATE / TIME
John Peepler	01-12-06 / 1600	Locked Cabinet Room 16 Bldg. 3746	01-12-06 / 1600
John Driggers / JDM Driggers			
locked cabinet 3746 room 16	1-16-06 / 1415	RZ Steffler R.J. Stuffl	1-16-06 1415
RZ Steffler R.J. Stuffl WCH	1-16-06 / 1500	Fed EX	

LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: _____ DATE: _____

PRINT/SIGN NAME